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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,244	11/21/2001	Brian W. Hedrick	106010	1968

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EXAMINER

ARNOLD JR, JAMES

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 04/03/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,244

Applicant(s)

HEDRICK ET AL.

Examiner

James Arnold, Jr.

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8 and 17-20, drawn to a stripping process, classified in class 208, subclass 113.
- II. Claims 9-16, drawn to a hydrocarbon stripping apparatus, classified in class 422, subclass 144.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as process and apparatus for its practice.

The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process can be accomplished with a materially different apparatus such as a cyclone separator followed by contacting with stripping steam in the absence of baffles.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with James Paschall on March 10, 2003 a provisional election was made WITH traverse to prosecute the invention of Group I, claims 1-8 and 17-20. Affirmation of this election must be made by applicant in replying to this Office action. Claim 9-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 recites the limitation "flux rate" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lomas (USPN 6,010,618) in view of Tyson (USPN 2,472,502).

The Lomas reference discloses a stripping process involving contacting particles with a hydrocarbon stream and disengaging hydrocarbons from the particles after contact with said hydrocarbon stream to produce a stream of contacted particles containing hydrocarbons. Column 2, lines 66-67; Column 3, lines 1-15; and Column 5 lines 44-54. The reference discloses passing the contacted particles downwardly over a plurality of sloped stripping baffles while discharging a stripping fluid upwardly through openings of said baffles. See Column 8, lines 62-67 and Column 9, lines 1-5. The reference discloses recovering stripping fluid and stripped hydrocarbons from the stripping baffles and recovering stripped particles from the stripping baffles. Column 9, lines 26-37. The Lomas reference discloses a process for the stripping of entrained and/or adsorbed hydrocarbons from particulate material, wherein the entrained and/or adsorbed hydrocarbons are from the fluidized catalytic cracking (FCC) of an FCC feed with a particulate material comprising an FCC catalyst, said process comprising: contacting an FCC feed with FCC catalyst to provide a mixture of FCC catalyst and FCC feed and to convert the FCC feed while depositing coke on the FCC catalyst; and disengaging converted FCC feed from the FCC catalyst to produce a stream of disengaged catalyst particles containing hydrocarbons. See Column 2, lines 66-67; Column 3, lines 1-15; Column 5, lines 44-54; and Column 1, lines 5-12. The reference discloses recovering stripped FCC catalyst that passes downwardly from the stripping baffles; passing stripped FCC catalyst to a regeneration zone to remove coke from the FCC catalyst; and returning FCC catalyst from the regeneration zone for contact with the FCC feed. Column 9, lines 26-37 and Column 9, lines 1-5.

The Lomas reference does not disclose a process wherein each baffle has a top section proximate a top edge of said baffle and a bottom section proximate a bottom edge of said baffle, said top section and said bottom section being demarcated by an imaginary line extending literally on said baffle and substantially parallel to one of said top edge, said bottom edge and an imaginary line bifurcating said baffle into equal areas, said top section and said bottom section of said baffle each including a plurality of openings. The reference does not disclose a process wherein a ratio of total area of openings per area of baffle in the bottom section is greater than in the top section of said baffle; an average distance between adjacent openings is smaller in the bottom section of the baffle than in the top section of the baffle; a total area of openings in the bottom section of the baffle is greater than the total area of openings in the top section of said baffle; openings in the bottom section and top section of said baffle are distributed in rows substantially parallel to one of said top and bottom edges; a distance between adjacent rows of openings and a distance between openings in one of said adjacent rows of openings is equal; and the imaginary line intersects a mid-point between the top edge and the bottom edge. The reference does not disclose a volumetric flow rate of stripping fluid moving through the bottom section of the baffle being greater than a volumetric flow rate of stripping fluid moving through the top section of said baffle, and stripping hydrocarbons from the particulate material nor does it disclose a flux rate through the stripper of less than 60,000 lbs/hr/ft²

The Tyson reference discloses baffles containing multiple openings (such as a grate like configuration of baffles) and resulting in better stripping. See column 1, lines 50-55 and column 2, lines 1-15 and 24-29.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a process wherein each baffle has a top section proximate a top edge of said baffle and a bottom section proximate a bottom edge of said baffle, said top section and said bottom section being demarcated by an imaginary line extending literally on said baffle and substantially parallel to one of said top edge, said bottom edge and an imaginary line bifurcating said baffle into equal areas, said top section and said bottom section of said baffle each including a plurality of openings because it has been held that changes in size are not a matter of invention. See In re Rose, 220 F.2d 459 (CCPA 1955) and Gardner v. TEC Systems, Inc., 725 F.2d 1338 (Fed. Cir. 1984). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a process wherein a ratio of total area of openings per area of baffle in the bottom section is greater than in the top section of said baffle; an average distance between adjacent openings is smaller in the bottom section of the baffle than in the top section of the baffle; a total area of openings in the bottom section of the baffle is greater than the total area of openings in the top section of said baffle; openings in the bottom section and top section of said baffle are distributed in rows substantially parallel to one of said top and bottom edges; a distance between adjacent rows of openings and a distance between openings in one of said adjacent rows of openings is equal; and the imaginary line intersects a mid-point between the top edge and the bottom edge because it has been held that changes in size are not a matter of invention. See In re Rose, 220 F.2d 459 (CCPA 1955) and Gardner v. TEC Systems, Inc., 725 F.2d 1338 (Fed. Cir. 1984). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a volumetric flow rate of stripping fluid moving through the bottom section of the baffle being greater than a volumetric

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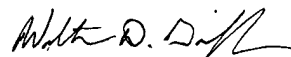
flow rate of stripping fluid moving through the top section of said baffle, and stripping hydrocarbons from the particulate material nor does it disclose a flux rate through the stripper of less than 60,000 lbs/hr/ft² because volumetric flow is disclosed by the Lomas reference and it would be appropriate to utilize a volumetric flow effective for stripping. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Lomas to utilize the baffles of Tyson because the Tyson baffles with their multiple openings are effective for stripping.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Arnold, Jr. whose telephone number is 703-305-5308. The examiner can normally be reached on Monday-Thursday 8:30 AM-6:00 PM; Fridays from 8:30 AM – 5:00 PM with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.



Walter D. Griffin
Primary Examiner

ja
March 27, 2003